

Trend Study 1-11-01

Study site name: Kimber Ranch.

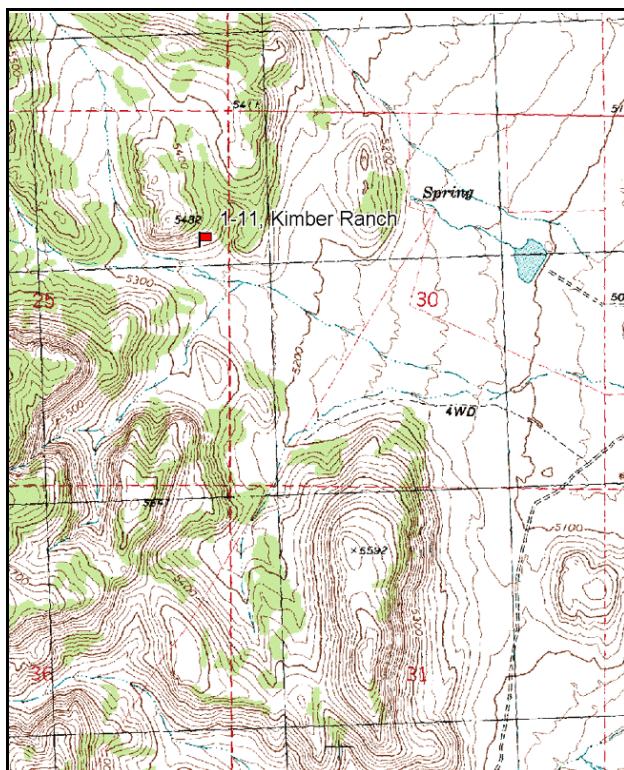
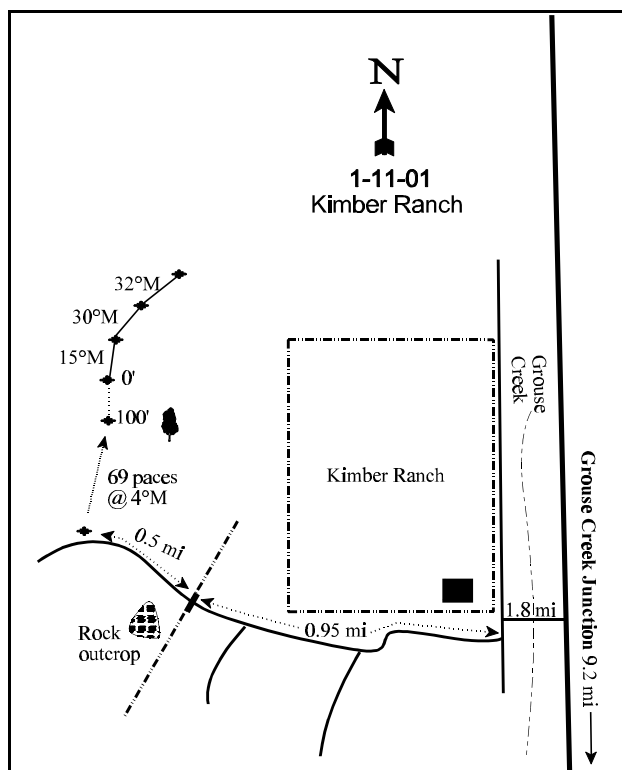
Vegetation type: Black Sagebrush.

Compass bearing: frequency baseline 165 degrees magnetic.

Frequency belt placement: line 1 (11 & 95ft), line 2 (34ft), line 3 (59ft), line 4 (71ft).

LOCATION DESCRIPTION

Proceed on U-30 to Grouse Creek junction, turn right and travel north 9.2 miles. Turn left at the ranch complex and proceed 1.8 miles to the Kimber Ranch. At the ranch house stay left for 0.05 miles. Stay left for another 0.25 miles, then turn right going west for 0.6 miles. Turn right for 0.1 miles to a gate. Continue up the road 0.5 miles to a witness post on the right side of the road. From the witness post walk 69 paces at 4 degrees magnetic to the 100-foot post. The 0-foot stake is 100 feet to the north and is marked by browse-tag #7912.

Map Name: Toms Cabin SpringTownship 10N, Range 19W, Section 25

Diagrammatic Sketch

UTM 4605076 N, 252701 E

DISCUSSION

Trend Study No. 1-11

The Kimber Ranch trend study samples a similar range type as study #10, Kilgore Basin. The study is on a moderately steep (20%) south slope, just west of the Kimber Ranch at an elevation of approximately 5,300 feet. Winter use from deer on this black sagebrush type was very heavy in 1984. Additional use can come from cattle and horses. A pellet-group transect read in conjunction with the vegetative transect in 2001, estimated 27 deer days use/acre (66 deer days use/ha) and 2 cow days use/acre (5 cow days use/ha).

Soil, which is derived from alluvially deposited basalt, is very well drained and has considerable surface rockiness. Soil texture is a clay loam that has a slightly alkaline soil reaction (7.8 pH). The average soil temp is the highest of any site within this management unit (73° F), where the average for the unit is 58° F. This high of a soil temperature would be advantageous to winter annuals like cheatgrass. Protective ground cover (vegetation and litter cover) is poor and comprised primarily of dead cheatgrass litter and shrub crowns with large amounts of rock and erosion pavement. Apart from cheatgrass, herbaceous cover is insufficient.

Browse composition is dominated by a low-growing, evenly spaced stand of black sagebrush. The population was noted as heavily hedged in 1984. Aside from the mostly moderate use in 1996, use since then has been mostly light. Young plants have averaged over 12% between 1990 and 2001, while seedlings have been found infrequently with the exception of 1996. The increasing denseness of cheatgrass appears to be offering significant competition to seedling establishment in association with the extended drought. Percent decadency was high at 69% in 1990. It declined to 17% in 1996 then increased slightly to 23% in 2001. The percentage of dead within the population has remained almost unchanged since 1996 at about 6%, which is a very low value for sagebrush. This site has a relatively low growth potential as illustrated by the fact that the average annual leader growth for this site is less than 1 inch.

Other associated shrubs include Wyoming big sagebrush and shadscale. Although, together they provide less than 1% total cover, or only about 5% of the total shrub cover. The Wyoming big sagebrush number only about 60 plants/acre and show light use. This is a marginal site for Wyoming big sagebrush and with extended drought conditions and shallow rocky soils, they may not survive through the duration of the drought. The shadscale are also in a declining condition on this marginal site. However, neither species is of any special importance because they are not abundant and provide only a small portion of the total browse cover.

Herbaceous composition consists chiefly of grasses, especially cheatgrass which made up 64% of the grass cover in 1996 and 89% in 2001. The most important perennials include: bluebunch wheatgrass, Thurber needlegrass, bottlebrush squirreltail, Indian ricegrass, and Sandberg bluegrass. Together these species provide on average only 1-2% total cover. Grasses are understandably not an important source of forage. Perennial forbs are even more rare and together provide less than ½ of 1% cover. The most conspicuous perennial forbs include desert Indian paintbrush and longleaf phlox.

1984 APPARENT TREND ASSESSMENT

Excessive, almost year-round use by deer, cattle, and horses have severely impacted this site, along with winter injury through the harsh winters of 1983 and 1984. The apparent result is increased soil movement, increased abundance of cheatgrass and other annual plants, and an apparent decline in the key browse species. Vigor of most plants is predominantly poor. Overall trend appears to be declining.

1990 TREND ASSESSMENT

Trend for black sagebrush is declining. Density has declined slightly, decadent black sagebrush have increased from 34% to 69%, and vigor is poor on 36% of the decadent plants sampled. The sagebrush showed light to moderate hedging but had low reproduction potential. This low production would be expected with the extended drought. The high density of cheatgrass also inhibits sagebrush reproduction and growth. The grasses have been heavily grazed yet sum of nested frequency has increased slightly. Cheatgrass is still fairly dense (there are no quantitative measures for annuals before 1992). The forb component is depleted and decreasing, although it only provides less than ½ of 1% total cover. Also typical of this range site type, the soil surface is dominated by erosion pavement.

TREND ASSESSMENT

soil - stable, but in poor condition (3)

browse - stable (3)

herbaceous understory - stable but depleted (3)

1996 TREND ASSESSMENT

Protective ground cover conditions are still poor with relatively low values for vegetative cover and a decrease in litter cover. Percent bare ground increased from 3% to 7%, while pavement and litter cover declined, probably the result of some overland flows covering some of the rock and pavement. Sum of nested frequency for grasses also declined. Trend for soil is considered slightly down. Browse trend is slightly up due to increased density, improved vigor and reduced decadence (69% to 17%). Trend for the herbaceous understory is slightly down. Sum of nested frequency of perennial grasses declined slightly while that of forbs increased, but forbs only make up less than 1% total cover. Sum of nested frequency for bluebunch wheatgrass and Indian ricegrass increased, while frequency of squirreltail and Thurber needlegrass declined. Overall, perennial grass trend is slightly down and contributes to 93% of the herbaceous cover.

TREND ASSESSMENT

soil - slightly down and poor condition (2)

browse - slightly up (4)

herbaceous understory - slightly down and in very poor condition (2)

2001 TREND ASSESSMENT

Protective ground cover conditions are still poor with relatively low values for vegetative cover and a decrease in litter cover. Percent bare ground increased from 7% to 10% while pavement and litter cover declined. The ratio of bare soil to protective ground cover has decreased substantially. Trend for soil is considered slightly down. Browse trend is considered slightly down due to a decrease in density. In addition, those plants classified with poor vigor increased and percent decadence increased (17% to 23%). Trend for the herbaceous understory is slightly down. Sum of nested frequency of perennial grasses declined slightly while that of perennial forbs also decreased. However, altogether the perennial herbaceous species make up less than 2% total cover. Cheatgrass has increased significantly since 1996. In 1996 it made up 64% of the grass cover, now it contributes to almost 90% of the grass cover.

TREND ASSESSMENT

soil - slightly down and poor condition (2)

browse - slightly down (2)

herbaceous understory - slightly down (2)

HERBACEOUS TRENDS --
Herd unit 01 , Study no: 11

Type	Species	Nested Frequency				Quadrat Frequency				Average Cover %	
		'84	'90	'96	'01	'84	'90	'96	'01	'96	'01
G	Agropyron smithii	-	-	-	2	-	-	-	1	-	.00
G	Agropyron spicatum	_a -	_b 9	_c 62	_c 61	-	5	27	30	.73	.74
G	Bromus tectorum (a)	-	-	_a 321	_b 362	-	-	99	100	3.11	11.06
G	Oryzopsis hymenoides	_a 4	_{ab} 21	_b 25	_a 8	3	10	16	4	.34	.10
G	Poa secunda	6	8	-	10	2	3	-	4	.00	.07
G	Sitanion hystrix	_c 79	_{bc} 58	_{ab} 43	_a 21	40	29	20	10	.41	.16
G	Stipa thurberiana	_b 99	_b 106	_a 28	_a 13	47	47	12	7	.21	.16
G	Vulpia octoflora (a)	-	-	22	21	-	-	9	8	.04	.06
Total for Annual Grasses		0	0	343	383	0	0	108	108	3.15	11.13
Total for Perennial Grasses		188	202	158	115	92	94	75	56	1.70	1.23
Total for Grasses		188	202	501	498	92	94	183	164	4.86	12.37
F	Antennaria rosea	-	-	-	2	-	-	-	1	-	.03
F	Astragalus beckwithii	1	-	4	-	1	-	2	-	.01	-
F	Astragalus utahensis	_{ab} 11	_a 3	_b 23	_a 3	6	2	13	2	.14	.03
F	Balsamorhiza hookeri	-	-	-	1	-	-	-	1	-	.03
F	Castilleja chromosa	_b 28	_a -	_a 6	_a -	13	-	3	-	.02	-
F	Chaenactis douglasii	1	-	-	-	1	-	-	-	-	-
F	Crepis acuminata	-	-	-	1	-	-	-	1	-	.03
F	Cryptantha spp.	-	-	3	-	-	-	2	-	.01	-
F	Descurainia pinnata (a)	_a -	_a -	_a 3	_b 12	-	-	1	8	.00	.06
F	Erigeron aphanactis	4	-	-	-	2	-	-	-	-	-
F	Eriogonum caespitosum	5	2	3	-	2	2	1	-	.00	-
F	Erigeron pumilus	-	-	-	1	-	-	-	1	-	.00
F	Gilia spp. (a)	-	-	_a 2	_b 114	-	-	1	48	.00	.34
F	Hymenopappus spp.	-	-	8	-	-	-	3	-	.06	-
F	Lappula occidentalis (a)	-	-	_a -	_b 9	-	-	-	6	-	.03
F	Lygodesmia spp.	-	-	3	-	-	-	2	-	.03	-
F	Navarretia intertexta (a)	-	-	2	-	-	-	2	-	.01	-
F	Orobancha fasciculata	-	1	6	2	-	1	2	1	.01	.00
F	Phlox longifolia	13	9	6	14	9	4	4	6	.02	.03
F	Streptanthus cordatus	-	1	-	-	-	1	-	-	-	-
F	Unknown forb-perennial	-	1	-	-	-	1	-	-	-	-

T y p e	Species	Nested Frequency				Quadrat Frequency				Average Cover %	
		'84	'90	'96	'01	'84	'90	'96	'01	'96	'01
	Total for Annual Forbs	0	0	7	135	0	0	4	62	0.01	0.43
	Total for Perennial Forbs	63	17	62	24	34	11	32	13	0.31	0.16
	Total for Forbs	63	17	69	159	34	11	36	75	0.34	0.59

Values with different subscript letters are significantly different at alpha = 0.10 (annuals excluded)

BROWSE TRENDS --

Herd unit 01 , Study no: 11

T y p e	Species	Strip Frequency		Average Cover %	
		'96	'01	'96	'01
B	Artemisia nova	98	93	14.88	15.18
B	Artemisia tridentata wyomingensis	0	3	-	.53
B	Atriplex confertifolia	15	10	1.27	.48
B	Chrysothamnus viscidiflorus stenophyllus	16	20	.42	.46
B	Gutierrezia sarothrae	8	6	.00	-
B	Juniperus osteosperma	2	3	1.62	1.63
B	Kochia americana	9	9	.07	.07
B	Opuntia spp.	0	1	.00	-
	Total for Browse	148	145	18.29	18.36

CANOPY COVER --

Herd unit 01 , Study no: 11

Species		Percent Cover		Trees per Acre		Average diameter (in)	
		'96	'01	'96	'01	'96	'01
Juniperus osteosperma		-	2	39	60	4.0	5.0

BASIC COVER --

Herd unit 01 , Study no: 11

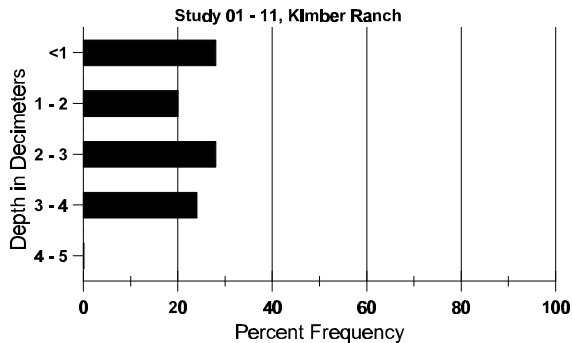
Cover Type	Nested Frequency		Average Cover %			
	'96	'01	'84	'90	'96	'01
Vegetation	335	363	1.75	9.00	25.21	31.16
Rock	315	294	19.50	26.50	17.69	19.26
Pavement	352	344	40.50	43.50	37.90	35.37
Litter	366	301	35.75	17.75	12.99	16.33
Cryptogams	14	5	0	0	.08	.01
Bare Ground	187	230	2.50	3.25	6.77	10.06

SOIL ANALYSIS DATA --

Herd Unit 01, Study no: 11, Kimber Ranch

Effective rooting depth (in)	Temp °F (depth)	PH	%sand	%silt	%clay	%OM	PPM P	PPM K	dS/m
11.9	73.0 (10.5)	7.8	42.9	29.1	28.0	1.9	7.0	134.4	.5

Stoniness Index



PELLET GROUP FREQUENCY --

Herd unit 01 , Study no: 11

Type	Quadrat Frequency		Pellet Transect	
	'96	'01	Pellet Groups per Acre '01	Days Use per Acre (ha) '01
Rabbit	6	-	52	N/A
Horse	1	-	-	-
Deer	17	15	348	27 (66)
Cattle	-	7	26	2 (5)

BROWSE CHARACTERISTICS --

Herd unit 01 , Study no: 11

Artemisia nova																	
A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.	Total
		1	2	3	4	5	6	7	8	9	1	2	3	4			
S	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	96	17	-	-	-	-	-	-	-	-	17	-	-	-	340		17
	01	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
Y	84	2	3	8	-	-	-	-	-	-	13	-	-	-	866		13
	90	5	1	-	-	-	-	-	-	-	6	-	-	-	400		6
	96	40	4	-	1	-	-	-	-	-	45	-	-	-	900		45
	01	54	-	-	2	-	-	-	-	-	55	-	1	-	1120		56
M	84	1	3	39	-	-	-	-	-	-	35	-	5	3	2866	7 17	43
	90	12	6	-	-	-	-	-	-	-	16	1	1	-	1200	9 15	18
	96	107	169	8	-	4	-	-	-	-	288	-	-	-	5760	12 24	288
	01	210	6	7	-	-	-	-	-	-	223	-	-	-	4460	9 20	223
D	84	-	1	28	-	-	-	-	-	-	24	-	5	-	1933		29
	90	43	9	-	1	-	-	-	-	-	31	1	2	19	3533		53
	96	19	47	-	-	-	-	-	-	-	56	-	-	10	1320		66
	01	70	5	-	6	-	-	-	-	-	53	-	-	28	1620		81
X	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	620		31
	01	-	-	-	-	-	-	-	-	-	-	-	-	-	440		22
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>						
'84		08%			88%			15%			- 9%						
'90		21%			00%			29%			+36%						
'96		56%			02%			03%			-10%						
'01		03%			02%			08%									
Total Plants/Acre (excluding Dead & Seedlings)												'84	5665	Dec:	34%		
												'90	5133		69%		
												'96	7980		17%		
												'01	7200		23%		

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches)		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4		Ht.	Cr.	
Artemisia tridentata wyomingensis																		
Y	84	5	1	6	-	-	-	-	-	-	12	-	-	-	800		12	
	90	1	-	-	-	-	-	-	-	-	1	-	-	-	66		1	
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	01	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
M	84	1	3	3	-	-	-	-	-	-	7	-	-	-	466	17	21	7
	90	1	-	-	1	-	-	-	-	-	1	-	1	-	133	11	14	2
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	01	2	-	-	-	-	-	-	-	-	2	-	-	-	40	24	23	2
D	84	-	1	3	-	-	-	-	-	-	2	-	2	-	266		4	
	90	3	-	-	-	-	-	-	-	-	3	-	-	-	200		3	
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	01	1	-	-	-	-	-	-	-	-	-	-	-	1	20		1	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'84		22%			52%			09%			-74%							
'90		00%			00%			17%										
'96		00%			00%			00%										
'01		00%			00%			33%										
Total Plants/Acre (excluding Dead & Seedlings)												'84	1532	Dec:	17%			
												'90	399		50%			
												'96	0		0%			
												'01	60		33%			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Atriplex confertifolia																		
S	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	6	-	-	-	-	-	-	-	-	-	-	-	-	120		6	
	01	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
Y	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	24	-	-	-	1	-	-	-	-	-	-	-	-	500		25	
	01	6	-	-	-	-	-	-	-	-	-	-	-	-	120		6	
M	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	96	13	3	-	-	3	-	-	-	-	-	-	-	-	380	9	17	
	01	1	-	-	6	-	-	-	-	-	-	-	-	-	140	14	26	
D	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	01	1	-	-	5	-	-	-	-	-	-	-	4	-	120		6	
X	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	20		1	
	01	-	-	-	-	-	-	-	-	-	-	-	-	-	20		1	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'84		00%			00%			00%										
'90		00%			00%			00%										
'96		16%			00%			00%			-57%							
'01		00%			00%			21%										
Total Plants/Acre (excluding Dead & Seedlings)												'84	0	Dec:	0%			
												'90	0		0%			
												'96	880		0%			
												'01	380		32%			
Chrysothamnus nauseosus hololeucus																		
M	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	01	-	-	-	-	-	-	-	-	-	-	-	-	-	0	26	51	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'84		00%			00%			00%										
'90		00%			00%			00%										
'96		00%			00%			00%										
'01		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'84	0	Dec:	-			
												'90	0		-			
												'96	0		-			
												'01	0		-			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Chrysothamnus viscidiflorus stenophyllus																		
S	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	2	-	-	-	-	-	-	-	-	2	-	-	-	40		2	
	01	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
Y	84	1	-	-	-	-	-	-	-	-	1	-	-	-	66		1	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	01	3	-	-	-	-	-	-	-	-	3	-	-	-	60		3	
M	84	12	4	-	-	-	-	-	-	-	16	-	-	-	1066	11 15	16	
	90	12	-	-	-	-	-	-	-	-	12	-	-	-	800	11 16	12	
	96	20	-	-	1	-	-	-	-	-	21	-	-	-	420	11 20	21	
	01	17	-	-	3	-	-	-	-	-	20	-	-	-	400	8 16	20	
D	84	1	4	-	-	-	-	-	-	-	4	-	1	-	333		5	
	90	3	-	-	-	-	-	-	-	-	-	-	-	3	200		3	
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	01	2	-	-	-	-	-	1	-	-	2	-	-	1	60		3	
X	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	01	-	-	-	-	-	-	-	-	-	-	-	-	-	20		1	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'84		36%			00%			05%			-32%							
'90		00%			00%			20%			-58%							
'96		00%			00%			00%			+19%							
'01		00%			00%			04%										
Total Plants/Acre (excluding Dead & Seedlings)												'84	1465	Dec:	23%			
												'90	1000		20%			
												'96	420		0%			
												'01	520		12%			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Gutierrezia sarothrae																		
S	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	1	-	-	-	-	-	-	-	-	1	-	-	-	20		1	
	01	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
Y	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	1	-	-	-	-	-	-	-	-	1	-	-	-	20		1	
	01	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
M	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	96	17	-	-	-	-	-	-	-	-	17	-	-	-	340	7	9	
	01	4	-	-	-	-	-	-	-	-	4	-	-	-	80	4	5	
D	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	01	4	-	-	-	-	-	-	-	-	1	-	-	3	80		4	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'84		00%			00%			00%										
'90		00%			00%			00%										
'96		00%			00%			00%			-56%							
'01		00%			00%			38%										
Total Plants/Acre (excluding Dead & Seedlings)												'84	0	Dec:	0%			
												'90	0		0%			
												'96	360		0%			
												'01	160		50%			
Juniperus osteosperma																		
Y	84	1	-	-	-	-	-	-	-	-	1	-	-	-	66		1	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	01	1	-	-	-	-	-	-	-	-	1	-	-	-	20		1	
M	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	90	1	-	-	-	-	-	-	-	-	1	-	-	-	66	65	55	
	96	2	-	-	-	-	-	-	-	-	2	-	-	-	40	-	2	
	01	-	-	-	1	-	-	-	1	-	2	-	-	-	40	-	2	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'84		00%			00%			00%			+ 0%							
'90		00%			00%			00%			-39%							
'96		00%			00%			00%			+33%							
'01		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'84	66	Dec:	-			
												'90	66		-			
												'96	40		-			
												'01	60		-			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Kochia americana																		
S	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	-	-	-	1	-	-	-	-	-	1	-	-	-	20		1	
	01	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
Y	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	7	-	-	-	-	-	-	-	-	7	-	-	-	140		7	
	01	8	-	-	-	-	-	-	-	-	8	-	-	-	160		8	
M	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	96	15	-	-	-	-	-	-	-	-	15	-	-	-	300	4	6	
	01	9	-	-	-	-	-	-	-	-	9	-	-	-	180	4	4	
D	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	96	-	1	-	-	-	-	-	-	-	1	-	-	-	20		1	
	01	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'84		00%			00%			00%										
'90		00%			00%			00%										
'96		04%			00%			00%			-26%							
'01		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'84	0	Dec:	0%			
												'90	0		0%			
												'96	460		4%			
												'01	340		0%			
Opuntia spp.																		
Y	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	90	1	-	-	-	-	-	-	-	-	-	-	1	-	66		1	
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	01	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
M	84	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	90	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	96	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	01	1	-	-	-	-	-	-	-	-	1	-	-	-	20	-	1	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'84		00%			00%			00%										
'90		00%			00%			100%										
'96		00%			00%			00%										
'01		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'84	0	Dec:	-			
												'90	66		-			
												'96	0		-			
												'01	20		-			